

# Allianz Life Insurance Company of North America

**Home Office:  
5701 Golden Hills Drive  
Minneapolis, MN 55416-1297**

## **Actuarial Memorandum Supporting 33% Aggregate Premium Rate Increase On Individual Long-Term Care Insurance Policy Forms**

### **1. TYPE OF CHANGE**

Allianz Life Insurance Company of North America (the Company) proposes the following rate revisions on the below long-term care (LTC) policy forms. The company issued these policy forms in Maryland between 2003 and 2006.

<u>Product Name</u>	<u>Form series (including associated riders)</u>
Term LTC (TRM)	8-P-Q-MD, 8-P-F-Q-MD

The premium rate increase request varies by benefit period. The table below provides the requested rate increase:

<b>Policy Form Series</b>	<b>Benefit Period</b>	
	<b>2-3 Years</b>	<b>5 Years</b>
TRM	20%	55%

As the Company is not currently marketing new business, the required statement that the renewal premium rate schedules are not greater than the new business premium rate schedules is not applicable.

### **2. PURPOSE OF FILING**

This memorandum has been prepared to provide actuarial information supporting a rate revision to premiums for the form series above. The rate revision meets the minimum requirements in the statutes of Maryland.

The Company is requesting a premium rate increase on the above-listed forms, including all associated riders. These forms are in need of a premium rate increase due to past and projected future experience that continues to be more adverse than previously expected and originally priced for.

### **3. LIMITATIONS AND EXCLUSIONS**

This actuarial memorandum is intended to support the premium rate increase on the policy form described above and it is not appropriate to use for any other purposes.

#### 4. HISTORY OF RATE REVISION

The table below provides the rate increase history in Maryland for all policy form series in this filing.

Rate Increase Round	Policy Form Series: TRM		
	Date of Approval	Rate Increase Amount	SERFF Tracking Number (if available)
First Rate Increase	11/17/2009	15%	ALLB-126139250
Second Rate Increase	6/18/2020	0%	ALLB-132270450

Exhibit 1 provides the rate increase history nationwide for the policy form series in this filing.

#### 5. SCOPE AND APPLICABILITY

This filing applies to active premium paying policies issued in this state for the policy forms listed above. These policy forms are no longer being marketed. These policy forms include premium payment options and traditional level-pay-for-life. All premium paying policies are included in this filing and in the attached distribution of business Exhibits. Exhibit 1 provides a distribution of in-force policies and total annual premiums by issue state.

These rates when approved will be applied to policies delivered or issued for delivery in the state of Maryland, regardless of place of current residence.

#### 6. DESCRIPTION OF BENEFITS

These plans are Guaranteed Renewable, Individual Long Term Care Insurance plans. Plans cover facility care and home and community care where applicable. Premiums vary by issue age and are projected to be level for the duration of the policy, unless modified by the riders elected by the policyholder. Rider charges are factor based and are a multiplier of the base premium.

*Several coverage options are available:*

- ❖ Various Maximum Benefit Periods
- ❖ Various Daily Benefit Amounts
- ❖ Various Elimination Periods
- ❖ Facility Care Plan with various Home and Community Care Benefit levels
- ❖ Separate rates for different underwriting classes
- ❖ Separate rates for joint and single lives

## **7. POLICYHOLDER OPTIONS**

Assuming that the proposed rate increase becomes effective, policyholders will have the following options upon notification of the rate increase:

### *Policyholder Options to Reduce Benefits:*

Policyholders with benefits above the minimum coverage level have the option to modify their policy benefits to mitigate the impact of the proposed rate increase. As examples, the options include, but are not limited to the following:

1. Reduce their benefit period,
2. Lower their daily benefit,
3. Increase their elimination period,
4. Reduce or cancel cost of living accumulation (COLA) riders.

To further minimize the impact to policyholders: As a part of this rate increase, for a limited time policyholders who reduce or cancel their COLA benefit riders will maintain all of their past COLA benefit increase percentages. Future premiums and benefit increases will be based on the new coverage levels elected by the policyholder. If the policyholder reduces their daily benefit, then the past increase in daily benefit from COLA rider will be reduced by the same proportion.

### *Non-forfeiture Offers:*

In addition, the Company will give the policyholder the option to accept a non-forfeiture benefit if they receive a premium increase at no charge. Acceptance of the non-forfeiture benefit will provide the policyholder with a reduced paid-up policy, with no future premiums required after the effective date of the policyholder's rate increase. Policyholders who elect this option will pay no additional premiums after the effective date of the rate increase, and their benefit pool will be their total premiums paid. In consideration of our policyholders, our company does not subtract past claims from the benefit pool prior to the election of this rider.

## **8. ISSUE YEAR**

These forms were sold from 2003 to 2006 in Maryland, and marketed nationally from 2002 through 2006. These forms are no longer being issued in any state as Allianz stopped issuing all individual standalone long-term care insurance in 2010.

## **9. UNDERWRITING DESCRIPTION**

All policies subject to this rate revision were subject to full underwriting in accordance with Company standards in place at the time of issue. Those underwriting standards were taken into consideration when projecting future experience.

## **10. MARKETING METHOD**

Sales were conducted by individual agents, who sold primarily on an individual policy basis. The Company no longer sells long-term care insurance policies.

## 11. AREA FACTORS

The Company did not use area factors within the state.

## 12. AVERAGE ANNUAL PREMIUM PER INSURED

This section compares the average premiums of the Maryland policy forms and nationwide policy forms. The following table provides the average annual premium based on December 31, 2021 in-force policies for the policy forms included in this filing, both without and with the requested increase.

### Maryland Policy Forms:

Current Average Annual Premium:	\$1,668	(13 Premium Paying Policies)
Proposed (33% increase):	\$2,221	

### National Policy Forms:

2021 Annual Premium:	\$1,467	(1,469 Premium Paying Policies)
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## 13. PREMIUM MODALIZATION RULES

The modal premium factors will remain unchanged from the current factors.

## 14. RESERVES

Active life reserves have not been used in the experience exhibits for this rate increase analysis for the purpose of demonstrating compliance with minimum loss ratio requirements.

At each valuation date, a claim reserve is computed for each active and pending claim case. For active claims, the claim reserve is calculated as the present value of future benefits from the valuation date to the end of the benefit period. Benefit amounts are discounted for interest and claim continuance. Claim reserves have been discounted and allocated to the appropriate incurred year.

## 15. BEST ESTIMATE ACTUARIAL ASSUMPTIONS

### a. Morbidity:

Attained age claim costs and Waiver of Premium benefits used in projecting future experience for these forms have been developed utilizing Company-specific policy experience enhanced with other industry data as needed. Claim costs vary by joint policy status (joint vs. single), gender and various levels of home health care with adjustments for elimination periods, benefit periods, and riders.

Claim costs are developed from first principle using company-specific historical claim experience. Allianz incidence rates are typically credible up to age 89. Allianz data was then graded towards industry data for ages 89 and above, ultimately equating with industry experience by age 100. Continuance and utilization rates from Allianz claim data were blended with industry data when

experience lacked credibility (fewer than 1,000 beginning of month claim exposures). Allianz experience was generally in line with industry data.

Future claim costs are projected on a seriatim basis for each policyholder. These claim costs are adjusted according to each policy’s benefit designs, such as COLA option, elimination periods and benefit periods.

Underwriting, claim management and product design were taken into consideration when setting the assumptions. Allianz historical experience includes the positive impact of underwriting selection. No scalar increases to the claim cost assumption are made within these projections to reflect future wear off from underwriting selection.

b. Mortality:

The projected future experience uses the gender-distinct 2012 Individual Annuitant Mortality (2012 IAM) table. This assumption is developed based on feedback from our consultants and is consistent with industry practice. The mortality assumption balances our morbidity assumption as neither is projected to have future improvements.

c. Persistency:

The Company’s own experience was used in the development of the lapse assumption. The experience is determined to be credible through policy duration 11. The voluntary lapse assumption is split by duration, marital status and COLA option as follows:

Duration	Individual		Married	
	Non-COLA	COLA	Non-COLA	COLA
1	9.50%	7.00%	7.70%	3.50%
2	6.80%	4.50%	5.80%	2.50%
3	4.00%	2.20%	3.80%	1.50%
4	3.00%	1.50%	2.80%	1.25%
5	2.30%	1.30%	1.00%	0.50%
6	1.60%	0.90%	1.00%	0.50%
7+	1.40%	0.75%	1.00%	0.40%

Additional lapses caused by exhaustion of benefits are also modeled using claim incidence, continuance, and utilization rates.

Based on company experience, a 1% increase to lapse rate is assumed immediately after the implementation of the rate increase to account for the election of reduced paid up benefit.

d. Expected Benefit Reduction:

Based on company experience from previous rate increases, the cash flow projection for the proposed rate increase includes an expectation of policyholders lowering their lifetime maximum benefit.

Lifetime benefit period policies are projected to reduce to a 5 year benefit period 7% of the time and to a 3 year benefit period 6% of the time. Policyholders with a non-lifetime benefit period equal to or greater than 5 years are projected to reduce to a 3 year benefit period 5% of the time.

- e. Interest and Investment Income:  
An interest rate of 4.5% is used in these exhibits to calculate the loss ratio. Changes in interest rates and investment income are not used to justify the rate increase.
- f. Expenses:  
Changes in expense are not used to justify the rate increase and are not included in this analysis. It is assumed that original expense assumptions are still appropriate.

Exhibit 2 provides additional information and justification for the assumptions used in this filing.

The Company is no longer marketing long-term care products. As a result, the requirement to reflect on any assumptions that deviate from those used for pricing other forms currently available for sale is not applicable.

## **16. DEMONSTRATION OF SATISFACTION OF REQUIREMENTS**

The projections included in this filing are produced by applying “best estimate” actuarial assumptions that reasonably reflect actual experience. All policies other than traditional-level-pay-for-life are excluded from the historical and projected experience used to calculate loss ratios. The anticipated lifetime loss ratio for policies based on Maryland specific rate history and these assumptions before the requested rate increase is 102.3% nationwide and 82.6% in Maryland based on pooled experience (Exhibit 3 & 4). The lifetime loss ratio after the requested rate increase is 98.4% nationwide and 79.0% in Maryland based on pooled experience (Exhibits 5 & 6). Loss ratios for Maryland policyholders are lower than national policies due to lower historical experience.

The requested rate increase is not calculated to achieve a targeted loss ratio or to maintain rate stability since that would require a significantly larger rate increase. The request is meant to find a balance between the poor performance of the business and the impact of rate increases on our policyholders.

The Company is aware of COMAR 31.14.01.04A(5) and that the requested rate increase would result in an increase greater than 15%. The company would also like to advise policyholders about future rate increases and therefore the company requests an opportunity to work with the Administration to obtain a current approval of the requested premium rate increase with the agreement that the approved increase will be implemented at no more than 15% per year. However, experience in Exhibits 4 and 6 reflects a one-time rate increase implementation. Spreading the rate increase over multiple years would only increase the lifetime loss ratios.

A detailed demonstration of the 58/85 calculations justifying the rate increase can be found in Exhibit 7. The justifiable rate increases under moderately adverse conditions are over 500% on a nationwide basis based on pooled experience. Moderately adverse conditions for the 58/85 calculation are defined as a 10% increase in future claim cost over the current best estimate. All of the policies in this filing are subject to post-rate stability regulation.

## **17. ANALYSIS PERFORMED TO CONSIDER A RATE INCREASE**

The initial premium schedules were based on pricing assumptions that reflected the Company’s best estimate utilizing the available information at the time. Recent experience studies performed show that experience is more unfavorable than previously assumed which resulted in assumptions being updated and has led to the Company requesting a rate increase on these products. The requested rate level is equal to the

original 2020 requests for each benefit period and is consistent with the approach taken in jurisdictions which approved less than the 2020 requests. The Maryland specific experience lacks credibility and was not considered on its own in determining the requested rate level compared to our nationwide requests. The original pricing assumptions compared to our current assumptions are included in Exhibit 8.

## 18. LOSS RATIOS

The lifetime loss ratios for the policy form series split by benefit period are provided in the table below both without and with the requested rate increase. To reflect Maryland specific rate history, nationwide loss ratios are restated to reflect rate increases implemented in Maryland. For actuarial modeling purposes the requested rate increase is assumed to be effective December, 2022.

<b>Benefit Period</b>	<b>Before Increase</b>	<b>After Increase</b>
<b>Maryland</b>		
2-3 Years	88.3%	86.3%
5 Years	72.4%	66.5%
All	82.6%	79.0%
<b>Nationwide</b>		
2-3 Years	89.9%	88.3%
5-8 Years	113.7%	107.5%
All	102.3%	98.4%

## 19. DISTRIBUTION OF BUSINESS

The historical experience reflects the actual distribution of policies during the experience period. We used the current distribution of business as of December 31, 2021 to project future experience.

<b>Benefit period</b>	<b>Nationwide</b>		
	<b>5% Compound COLA</b>	<b>No COLA</b>	<b>Grand Total</b>
<b>2-Year</b>	2.4%	5.0%	7.4%
<b>3-Year</b>	15.2%	26.6%	41.8%
<b>5-Year</b>	19.3%	31.4%	50.8%
<b>Grand Total</b>	36.9%	63.1%	100.0%

<b>Benefit period</b>	<b>Maryland</b>				
	<b>5% Compound COLA</b>	<b>No COLA</b>	<b>Grand Total</b>	<b>Proposed Rate Increase</b>	<b>Policyholder Impacted</b>
<b>2-Year</b>	0.0%	0.0%	0.0%	20%	0
<b>3-Year</b>	38.5%	15.4%	53.8%	20%	7
<b>5-Year</b>	7.7%	38.5%	46.2%	55%	6
<b>Grand Total</b>	46.2%	53.8%	100.0%	33%	13

## 20. ACTUARIAL CERTIFICATION

I am an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, and I meet the Academy's qualifications standards for preparing health rate filings.

Claims, reserves, and policyholder data are provided by our third party administrator and our valuation actuaries. Data was reviewed for reasonableness.

I hereby certify that, to the best of my knowledge and belief:

- a. It complies with Actuarial Standards of Practice No. 8 "Regulatory Filings for Rates and Financial Projections for Health Plans";
- b. The premiums charged after the proposed rate increase is not unfairly discriminatory and the premiums after the proposed rate increase are not excessive. The proposed premium rate increase is not sufficient to prevent future rate actions by the company and benefits currently are not reasonable in relation to the premiums charged.
- c. Assumptions within this filing are based on best estimate without provision for adverse deviation.
- d. Policy design, underwriting, and claims adjudication practices have been taken into consideration.

ALLIANZ LIFE INSURANCE COMPANY OF NORTH AMERICA

By:   
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Name: Scott Laska, ASA, MAAA  
Assistant Actuary  
Its: Authorized Designee  
July 5, 2022

**Exhibit 1**  
**Allianz Life Insurance Company of North America**  
**Status of Filing as of 6/17/2022**  
**Policy Form Series : 8-P-Q, et al.**

State	First Rate Increase				Second Rate Increase				Second Rate Increase (Follow-Up)				Cumulative Approved Increase	As of December 31, 2021	
	Amount Requested	Date Filed	Date Approved	Amount Approved	Amount Requested	Date Filed	Date Approved	Amount Approved	Amount Requested	Date Filed	Date Approved	Amount Approved		Policy Count	Annualized Premium
Alabama	25.0%	5/22/2009	2/3/2010	15.0%	52.0%	3/18/2020	5/6/2021	15.0%					32.3%	18	\$ 20,126
Alaska	25.0%	5/27/2009	6/23/2009	25.0%	55.0%	5/22/2020	6/2/2020	55.0%					93.8%	2	\$ 6,271
Arizona	25.0%	10/8/2009	11/17/2009	15.0%	50.0%	4/27/2020	8/10/2021	44.8%					66.5%	36	\$ 47,806
Arkansas	25.0%	5/22/2009	8/19/2009	25.0%	59.0%	4/28/2020	7/6/2020	16.5%	43.0%	10/27/2021	Disapproved	0.0%	45.6%	9	\$ 11,273
California		N/A				N/A							0.0%	-	\$ -
Colorado	25.0%	10/30/2009	12/1/2009	25.0%	50.0%	4/13/2020							25.0%	48	\$ 74,596
Connecticut	25.0%	8/14/2009	Disapproved	0.0%	34.0%	4/24/2020	6/23/2020	15.0%	21.4%	4/26/2022			15.0%	25	\$ 41,317
Delaware	11.0%	8/21/2009	7/9/2010	11.0%	20.0%	5/13/2020	8/31/2020	20.0%					33.2%	4	\$ 2,724
Dist. of Columbia	43.0%	5/22/2020	6/8/2020	10.0%					10.0%	10/27/2021	1/10/2022	10.0%	21.0%	3	\$ 2,443
Florida	37.9%	12/31/2019	9/24/2020	88.3%									88.3%	133	\$ 187,041
Georgia	25.0%	5/28/2009	3/5/2010	10.0%	57.0%	3/24/2020	7/23/2020	12.0%	44.5%	10/27/2021	1/6/2022	9.9%	35.4%	46	\$ 66,066
Hawaii	25.0%	6/4/2009	11/2/2009	25.0%	41.0%	5/22/2020	11/23/2021	40.5%					75.6%	21	\$ 32,784
Idaho	25.0%	6/4/2009	7/29/2009	25.0%	52.0%	6/5/2020	4/26/2021	17.5%					46.9%	22	\$ 29,849
Illinois	25.0%	6/2/2009	12/4/2009	25.0%									25.0%	57	\$ 90,418
Indiana	25.0%	6/23/2009	8/16/2010	25.0%	87.0%	6/26/2020	9/3/2020	9.6%	34.4%	1/27/2022			37.0%	38	\$ 55,654
Iowa	25.0%	8/14/2009	Disapproved	0.0%	56.0%	5/20/2020	8/24/2020	28.1%					28.1%	79	\$ 95,719
Kansas	25.0%	6/19/2009	11/10/2009	15.0%	48.0%	3/17/2020	12/3/2020	48.3%					70.5%	24	\$ 35,311
Kentucky	25.0%	6/19/2009	10/6/2009	25.0%	55.0%	4/3/2020	6/26/2020	27.5%					59.4%	15	\$ 20,919
Louisiana	25.0%	7/21/2009	11/6/2009	20.0%	60.0%	4/22/2020	12/17/2020	20.0%	40.3%	4/26/2022			44.0%	29	\$ 32,141
Maine	25.0%	5/27/2009	9/23/2009	12.5%	30.0%	6/26/2020	10/6/2020	24.5%					40.1%	5	\$ 11,959
Maryland	25.0%	7/17/2009	11/17/2009	15.0%	32.0%	5/12/2020	Disapproved	0.0%					15.0%	13	\$ 21,680
Massachusetts		N/A				N/A							0.0%	-	\$ -
Michigan	25.0%	5/22/2009	6/8/2009	25.0%	47.0%	5/11/2020	6/9/2020	47.0%					83.8%	54	\$ 106,019
Minnesota	25.0%	7/22/2009	Disapproved	0.0%	45.0%	3/25/2020	11/30/2020	44.5%					44.5%	90	\$ 123,541
Mississippi	25.0%	7/21/2009	10/6/2009	25.0%	40.0%	5/22/2020							25.0%	10	\$ 15,963
Missouri - LR*	25.0%	6/23/2009	9/1/2009	25.0%	50.0%	5/4/2020	8/13/2020	50.0%					87.5%	68	\$ 97,830
Missouri - RS*	25.0%	6/23/2009	9/1/2009	25.0%	60.6%	5/4/2020	6/8/2020	60.6%					100.8%	15	\$ 20,280
Montana	25.0%	7/17/2009	9/2/2009	25.0%	53.0%	5/4/2020	6/11/2020	49.2%					86.5%	13	\$ 32,438
Nebraska	25.0%	5/22/2009	2/10/2010	25.0%	49.0%	5/29/2020	1/22/2021	49.0%					86.3%	18	\$ 32,095
Nevada	25.0%	6/16/2009	Disapproved	0.0%	50.0%	4/21/2020	2/18/2021	20.3%					20.3%	17	\$ 21,092
New Hampshire	25.0%	6/16/2009	8/13/2009	25.0%	43.0%	5/29/2020	8/21/2020	25.1%					56.4%	9	\$ 17,200
New Jersey		N/A				N/A							0.0%	-	\$ -
New Mexico	25.0%	5/22/2009	12/23/2009	15.0%	46.0%	5/8/2020	5/29/2020	15.0%	32.0%	10/27/2021	2/3/2022	32.3%	74.9%	7	\$ 11,109
New York		N/A				N/A							0.0%	-	\$ -
North Carolina	25.0%	6/30/2009	12/7/2009	25.0%	51.0%	4/6/2020	4/20/2022	51.0%					88.8%	45	\$ 70,532
North Dakota	25.0%	5/22/2009	6/26/2009	15.0%	65.0%	4/24/2020	Disapproved	0.0%					15.0%	7	\$ 10,971
Ohio	25.0%	6/16/2009	10/30/2009	20.0%	41.0%	6/5/2020							20.0%	95	\$ 138,601
Oklahoma	25.0%	5/27/2009	10/27/2010	10.0%	58.0%	5/18/2020	6/11/2020	56.1%					71.7%	23	\$ 27,232
Oregon	25.0%	8/13/2009	9/11/2009	10.0%	52.0%	3/25/2020							10.0%	11	\$ 10,470
Pennsylvania - LR*	25.0%	6/23/2009	8/28/2009	25.0%		N/A							25.0%	-	\$ -
Pennsylvania - RS*	25.0%	6/23/2009	Disapproved	0.0%	44.0%	4/21/2020	9/4/2020	33.2%					33.2%	61	\$ 95,094
Rhode Island	25.0%	6/30/2009	Disapproved	0.0%	47.0%	5/29/2020							0.0%	5	\$ 8,229
South Carolina	25.0%	7/17/2009	10/8/2009	20.0%	49.0%	5/29/2020	10/29/2020	11.5%	38.1%	3/24/2022	5/18/2022	13.3%	51.6%	32	\$ 43,284
South Dakota	25.0%	7/1/2009	7/29/2009	25.0%	46.0%	5/29/2020	8/12/2020	46.0%					82.5%	14	\$ 28,815
Tennessee	25.0%	7/1/2009	8/3/2009	25.0%	56.0%	4/30/2020	5/4/2021	33.0%					66.3%	36	\$ 48,623
Texas	25.0%	11/8/2009	3/9/2010	25.0%	75.0%	5/7/2020	12/1/2020	70.2%					112.8%	93	\$ 146,090
Utah	25.0%	9/17/2010	Disapproved	0.0%	47.0%	6/5/2020	11/11/2020	47.0%					47.0%	16	\$ 12,789
Vermont	25.0%	7/20/2009	Disapproved	0.0%	61.0%	6/5/2020	7/7/2021	60.5%					60.5%	2	\$ 4,604
Virginia		N/A				N/A							0.0%	-	\$ -
Washington	25.0%	7/17/2009	2/8/2010	25.0%	52.0%	5/15/2020	3/12/2021	20.0%					50.0%	18	\$ 26,869
West Virginia	25.0%	8/5/2009	9/30/2009	25.0%	57.0%	6/12/2020	1/6/2021	52.2%					90.3%	4	\$ 5,590
Wisconsin	25.0%	6/23/2009	Disapproved	0.0%	45.0%	5/13/2020	7/28/2020	16.3%					16.3%	77	\$ 109,135
Wyoming	25.0%	5/22/2009	6/1/2009	25.0%	56.0%	6/12/2020	8/18/2020	54.7%					93.4%	2	\$ 4,849
<b>Total</b>													<b>55.7%</b>	<b>1,469</b>	<b>\$ 2,155,443</b>

\*LR = policies issued prior to the effective date of rate stability in that state.

RS = policies issued on or after the effective date of rate stability in that state.

**Exhibit 3**  
**Allianz Life Insurance Company of North America**  
**Nationwide Experience**  
**Policy Form Series: TRM**  
**As of 12/31/2021**  
**No Requested Rate Increase**

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2002	\$546,561	\$0	0.0%
2003	\$2,539,330	\$79,722	3.1%
2004	\$3,656,979	\$365,149	10.0%
2005	\$3,975,496	\$639,770	16.1%
2006	\$4,109,475	\$267,370	6.5%
2007	\$3,977,220	\$944,454	23.7%
2008	\$3,850,142	\$1,276,147	33.1%
2009	\$3,730,927	\$2,144,592	57.5%
2010	\$3,718,880	\$1,737,819	46.7%
2011	\$3,860,969	\$1,593,454	41.3%
2012	\$3,716,211	\$1,834,204	49.4%
2013	\$3,536,738	\$4,010,778	113.4%
2014	\$3,372,461	\$2,488,617	73.8%
2015	\$3,201,584	\$2,392,353	74.7%
2016	\$3,035,554	\$3,728,407	122.8%
2017	\$2,812,308	\$4,203,206	149.5%
2018	\$2,648,715	\$4,072,200	153.7%
2019	\$2,482,533	\$3,196,583	128.8%
2020	\$2,283,382	\$3,970,445	173.9%
2021	\$2,068,854	\$4,938,615	238.7%
2022	\$1,909,465	\$3,919,875	205.3%
2023	\$1,747,955	\$4,199,172	240.2%
2024	\$1,586,292	\$4,352,137	274.4%
2025	\$1,431,705	\$4,487,647	313.4%
2026	\$1,284,769	\$4,598,618	357.9%
2027	\$1,146,388	\$4,662,288	406.7%
2028	\$1,016,941	\$4,685,523	460.7%
2029	\$897,212	\$4,642,931	517.5%
2030	\$787,112	\$4,550,424	578.1%
2031	\$686,733	\$4,408,159	641.9%
2032	\$595,725	\$4,244,818	712.5%
2033	\$514,030	\$4,053,594	788.6%
2034	\$441,100	\$3,858,085	874.7%
2035	\$376,506	\$3,643,066	967.6%
2036	\$319,591	\$3,422,292	1070.8%
2037	\$269,910	\$3,184,497	1179.8%
2038	\$226,721	\$2,944,015	1298.5%
2039	\$189,459	\$2,700,654	1425.5%
2040	\$157,491	\$2,467,016	1566.4%
2041	\$130,353	\$2,233,664	1713.6%
2042	\$107,427	\$2,011,074	1872.0%
2043	\$88,174	\$1,795,987	2036.9%
2044	\$72,060	\$1,597,281	2216.6%
2045	\$58,684	\$1,407,878	2399.1%
2046	\$47,627	\$1,237,442	2598.2%
2047	\$38,551	\$1,083,917	2811.7%
2048	\$31,125	\$946,646	3041.5%
2049	\$25,096	\$821,883	3275.0%
2050	\$20,214	\$712,711	3525.8%
2051	\$16,280	\$617,023	3790.1%
2052	\$13,108	\$533,126	4067.2%
2053	\$10,558	\$456,683	4325.4%
2054	\$8,501	\$390,949	4598.9%
2055	\$6,839	\$335,049	4898.9%
2056	\$5,492	\$288,708	5256.5%
2057	\$4,401	\$246,599	5602.7%
2058	\$3,513	\$210,164	5981.7%
2059	\$2,791	\$177,716	6367.7%
2060	\$2,203	\$149,304	6778.5%
2061	\$1,727	\$124,718	7219.9%
2062	\$1,344	\$102,947	7660.8%
2063	\$1,035	\$83,759	8094.7%
2064	\$787	\$67,490	8578.3%
2065	\$590	\$53,900	9133.2%
2066	\$436	\$42,693	9800.5%
2067	\$316	\$33,394	10570.6%
2068	\$225	\$25,903	11535.4%
2069	\$156	\$19,555	12525.6%
2070	\$106	\$14,157	13401.0%
2071+	\$182	\$29,795	16368.0%

Summary of Experience at 4.5%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2021)	\$101,994,500	\$58,797,261	57.6%
Projected Future (2022 +)	\$12,479,656	\$58,342,848	467.5%
Total Lifetime Anticipated	\$114,474,156	\$117,140,110	102.3%

**Exhibit 4**  
**Allianz Life Insurance Company of North America**  
**Maryland Experience**  
**Policy Form Series: TRM**  
**As of 12/31/2021**  
**No Requested Rate Increase**

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2002	\$0	\$0	0.0%
2003	\$51	\$0	0.0%
2004	\$16,611	\$0	0.0%
2005	\$30,846	\$0	0.0%
2006	\$39,462	\$0	0.0%
2007	\$39,428	\$0	0.0%
2008	\$38,453	\$0	0.0%
2009	\$38,453	\$0	0.0%
2010	\$38,634	\$101,326	262.3%
2011	\$42,036	\$0	0.0%
2012	\$37,101	\$0	0.0%
2013	\$34,815	\$0	0.0%
2014	\$32,740	\$0	0.0%
2015	\$28,012	\$14,644	52.3%
2016	\$27,105	\$0	0.0%
2017	\$24,701	\$0	0.0%
2018	\$24,551	\$0	0.0%
2019	\$24,551	\$0	0.0%
2020	\$23,151	\$0	0.0%
2021	\$21,680	\$121,052	558.3%
2022	\$20,813	\$30,955	148.7%
2023	\$19,190	\$32,412	168.9%
2024	\$17,590	\$33,848	192.4%
2025	\$16,025	\$35,441	221.2%
2026	\$14,511	\$37,158	256.1%
2027	\$13,062	\$37,859	289.8%
2028	\$11,688	\$38,154	326.4%
2029	\$10,401	\$38,630	371.4%
2030	\$9,205	\$38,452	417.7%
2031	\$8,108	\$37,917	467.7%
2032	\$7,111	\$37,180	522.8%
2033	\$6,216	\$36,037	579.8%
2034	\$5,414	\$34,784	642.5%
2035	\$4,700	\$33,339	709.3%
2036	\$4,067	\$32,258	793.1%
2037	\$3,511	\$31,230	889.5%
2038	\$3,023	\$29,863	987.9%
2039	\$2,598	\$28,501	1097.0%
2040	\$2,229	\$26,780	1201.4%
2041	\$1,909	\$25,318	1325.9%
2042	\$1,632	\$24,057	1473.7%
2043	\$1,392	\$22,484	1615.0%
2044	\$1,183	\$21,124	1785.9%
2045	\$1,000	\$19,884	1988.2%
2046	\$841	\$18,892	2246.0%
2047	\$704	\$17,975	2554.5%
2048	\$585	\$16,540	2826.9%
2049	\$484	\$15,147	3131.5%
2050	\$397	\$13,653	3436.9%
2051	\$324	\$12,095	3734.0%
2052	\$262	\$10,674	4074.0%
2053	\$210	\$9,306	4428.8%
2054	\$166	\$8,046	4836.1%
2055	\$130	\$6,779	5233.7%
2056	\$99	\$5,648	5710.9%
2057	\$74	\$4,645	6273.5%
2058	\$54	\$3,739	6891.4%
2059	\$39	\$2,962	7624.2%
2060	\$27	\$2,251	8318.2%
2061	\$18	\$1,624	8897.0%
2062	\$12	\$1,142	9567.9%
2063	\$8	\$781	10330.6%
2064	\$5	\$521	11205.1%
2065	\$3	\$338	12205.5%
2066	\$2	\$215	13380.9%
2067	\$1	\$135	14720.7%
2068	\$1	\$85	16226.9%
2069	\$0	\$53	17932.8%
2070	\$0	\$33	19697.6%
2071+	\$0	\$49	30921.0%

Summary of Experience at 4.5%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2021)	\$877,030	\$311,336	35.5%
Projected Future (2022 +)	\$143,527	\$531,906	370.6%
Total Lifetime Anticipated	\$1,020,557	\$843,242	82.6%

**Exhibit 5**  
**Allianz Life Insurance Company of North America**  
**Nationwide Experience**  
**Policy Form Series: TRM**  
**As of 12/31/2021**  
**With Average 33% Rate Increase**

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2002	\$546,561	\$0	0.0%
2003	\$2,539,330	\$79,722	3.1%
2004	\$3,656,979	\$365,149	10.0%
2005	\$3,975,496	\$639,770	16.1%
2006	\$4,109,475	\$267,370	6.5%
2007	\$3,977,220	\$944,454	23.7%
2008	\$3,850,142	\$1,276,147	33.1%
2009	\$3,730,927	\$2,144,592	57.5%
2010	\$3,718,880	\$1,737,819	46.7%
2011	\$3,860,969	\$1,593,454	41.3%
2012	\$3,716,211	\$1,834,204	49.4%
2013	\$3,536,738	\$4,010,778	113.4%
2014	\$3,372,461	\$2,488,617	73.8%
2015	\$3,201,584	\$2,392,353	74.7%
2016	\$3,035,554	\$3,728,407	122.8%
2017	\$2,812,308	\$4,203,206	149.5%
2018	\$2,648,715	\$4,072,200	153.7%
2019	\$2,482,533	\$3,196,583	128.8%
2020	\$2,283,382	\$3,970,445	173.9%
2021	\$2,068,854	\$4,938,615	238.7%
2022	\$1,912,302	\$3,919,875	205.0%
2023	\$2,180,278	\$4,147,158	190.2%
2024	\$2,148,252	\$4,286,077	199.5%
2025	\$1,939,951	\$4,418,394	227.8%
2026	\$1,741,928	\$4,526,757	259.9%
2027	\$1,555,392	\$4,588,730	295.0%
2028	\$1,380,838	\$4,610,972	333.9%
2029	\$1,219,302	\$4,568,420	374.7%
2030	\$1,070,665	\$4,476,685	418.1%
2031	\$935,045	\$4,336,051	463.7%
2032	\$811,976	\$4,174,727	514.1%
2033	\$701,388	\$3,985,950	568.3%
2034	\$602,551	\$3,792,957	629.5%
2035	\$514,902	\$3,580,868	695.4%
2036	\$437,566	\$3,363,268	768.6%
2037	\$369,962	\$3,129,058	845.8%
2038	\$311,100	\$2,892,287	929.7%
2039	\$260,236	\$2,652,748	1019.4%
2040	\$216,528	\$2,422,835	1118.9%
2041	\$179,369	\$2,193,352	1222.8%
2042	\$147,933	\$1,974,555	1334.8%
2043	\$121,499	\$1,763,220	1451.2%
2044	\$99,349	\$1,567,987	1578.3%
2045	\$80,942	\$1,381,946	1707.3%
2046	\$65,711	\$1,214,577	1848.4%
2047	\$53,197	\$1,063,809	1999.8%
2048	\$42,952	\$929,028	2162.9%
2049	\$34,632	\$806,537	2328.9%
2050	\$27,895	\$699,366	2507.1%
2051	\$22,466	\$605,417	2694.8%
2052	\$18,092	\$523,061	2891.2%
2053	\$14,577	\$448,030	3073.5%
2054	\$11,744	\$383,510	3265.7%
2055	\$9,456	\$328,647	3475.5%
2056	\$7,602	\$283,156	3724.6%
2057	\$6,101	\$241,819	3963.9%
2058	\$4,878	\$206,042	4224.3%
2059	\$3,881	\$174,175	4487.5%
2060	\$3,069	\$146,276	4766.0%
2061	\$2,412	\$122,138	5063.6%
2062	\$1,880	\$100,790	5359.8%
2063	\$1,451	\$81,991	5650.2%
2064	\$1,106	\$66,053	5974.0%
2065	\$831	\$52,731	6344.6%
2066	\$615	\$41,742	6791.1%
2067	\$447	\$32,631	7307.6%
2068	\$318	\$25,296	7957.4%
2069	\$221	\$19,086	8623.3%
2070	\$150	\$13,809	9209.0%
2071+	\$259	\$29,011	11201.7%

Summary of Experience at 4.5%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2021)	\$101,994,500	\$58,797,261	57.6%
Projected Future (2022 +)	\$16,112,053	\$57,458,002	356.6%
Total Lifetime Anticipated	\$118,106,553	\$116,255,264	98.4%

**Exhibit 6**  
**Allianz Life Insurance Company of North America**  
**Maryland Experience**  
**Policy Form Series: TRM**  
**As of 12/31/2021**  
**With Average 33% Rate Increase**

<u>Year</u>	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
2002	\$0	\$0	0.0%
2003	\$51	\$0	0.0%
2004	\$16,611	\$0	0.0%
2005	\$30,846	\$0	0.0%
2006	\$39,462	\$0	0.0%
2007	\$39,428	\$0	0.0%
2008	\$38,453	\$0	0.0%
2009	\$38,453	\$0	0.0%
2010	\$38,634	\$101,326	262.3%
2011	\$42,036	\$0	0.0%
2012	\$37,101	\$0	0.0%
2013	\$34,815	\$0	0.0%
2014	\$32,740	\$0	0.0%
2015	\$28,012	\$14,644	52.3%
2016	\$27,105	\$0	0.0%
2017	\$24,701	\$0	0.0%
2018	\$24,551	\$0	0.0%
2019	\$24,551	\$0	0.0%
2020	\$23,151	\$0	0.0%
2021	\$21,680	\$121,052	558.3%
2022	\$20,813	\$30,955	148.7%
2023	\$23,585	\$32,001	135.7%
2024	\$22,986	\$33,377	145.2%
2025	\$20,980	\$34,937	166.5%
2026	\$19,035	\$36,617	192.4%
2027	\$17,169	\$37,292	217.2%
2028	\$15,394	\$37,570	244.1%
2029	\$13,728	\$38,033	277.0%
2030	\$12,173	\$37,852	311.0%
2031	\$10,740	\$37,317	347.4%
2032	\$9,434	\$36,583	387.8%
2033	\$8,254	\$35,455	429.6%
2034	\$7,192	\$34,216	475.8%
2035	\$6,243	\$32,786	525.2%
2036	\$5,396	\$31,714	587.7%
2037	\$4,650	\$30,696	660.1%
2038	\$3,994	\$29,351	734.9%
2039	\$3,422	\$28,013	818.7%
2040	\$2,924	\$26,321	900.1%
2041	\$2,493	\$24,888	998.1%
2042	\$2,121	\$23,655	1115.4%
2043	\$1,799	\$22,120	1229.7%
2044	\$1,519	\$20,793	1368.7%
2045	\$1,276	\$19,584	1534.2%
2046	\$1,067	\$18,615	1745.4%
2047	\$886	\$17,719	1999.7%
2048	\$732	\$16,310	2229.1%
2049	\$601	\$14,942	2487.6%
2050	\$490	\$13,474	2750.2%
2051	\$397	\$11,942	3009.5%
2052	\$319	\$10,544	3305.9%
2053	\$254	\$9,196	3615.6%
2054	\$200	\$7,954	3968.8%
2055	\$155	\$6,703	4313.6%
2056	\$118	\$5,587	4723.4%
2057	\$88	\$4,596	5202.8%
2058	\$65	\$3,699	5726.7%
2059	\$46	\$2,931	6345.2%
2060	\$32	\$2,227	6930.8%
2061	\$22	\$1,607	7420.4%
2062	\$14	\$1,130	7988.0%
2063	\$9	\$773	8632.8%
2064	\$5	\$515	9371.0%
2065	\$3	\$335	10213.6%
2066	\$2	\$213	11201.3%
2067	\$1	\$134	12325.1%
2068	\$1	\$84	13587.4%
2069	\$0	\$53	15015.9%
2070	\$0	\$33	16495.9%
2071+	\$0	\$49	25896.8%

Summary of Experience at 4.5%

	<u>Earned Premium</u>	<u>Incurred Claims</u>	<u>Loss Ratio</u>
Historical (YE2021)	\$877,030	\$311,336	35.5%
Projected Future (2022 +)	\$180,755	\$524,239	290.0%
Total Lifetime Anticipated	\$1,057,784	\$835,575	79.0%

**Exhibit 7**  
**58%/85% Calculations**  
**Allianz Life Insurance of North America**  
**Nationwide Experience**  
**Policy Form Series: TRM**

a)	The accumulated value of the initial earned premium is 58% of this value	96 56
b)	The accumulated value of prior premium rate schedule increases is 85% of this value:	6 5
c)	The present value of future projected initial earned premiums is 58% of this value	11 6
d)	The present value of future projected earned premium from prior premium rate schedule increases is PV of future projected EP from 33% increase: Combined: 85% of this value:	2 4 5 4
e)	The accumulated value of past incurred claims is The present value of future projected incurred claims* is sum of these 2 values:	59 63 122
f)	<b>The sum of a,b,c and d is</b> <b>This amount is less than e)</b>	72 122

\*Projected incurred claims contain a 10% margin for moderately adverse experience.